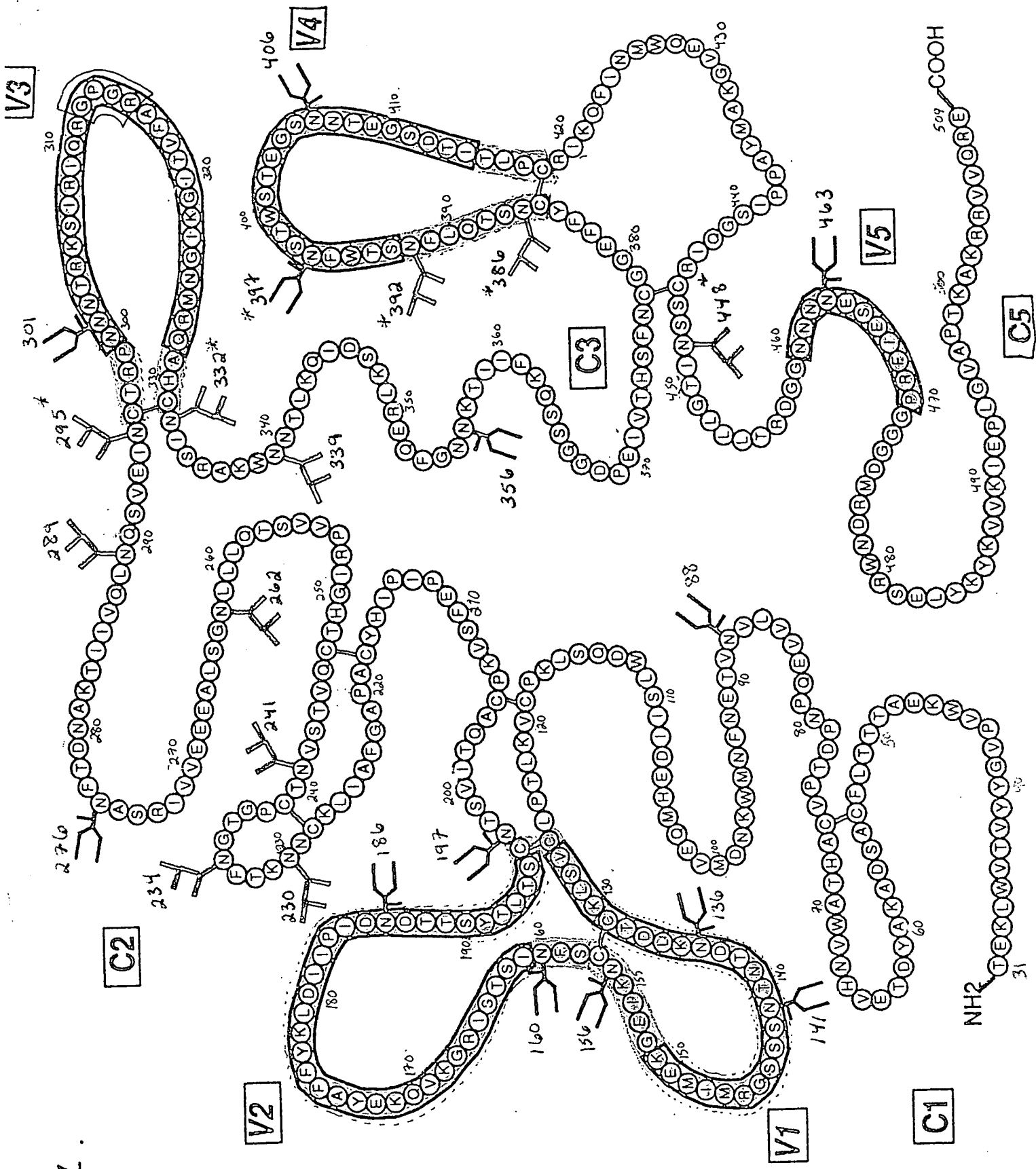


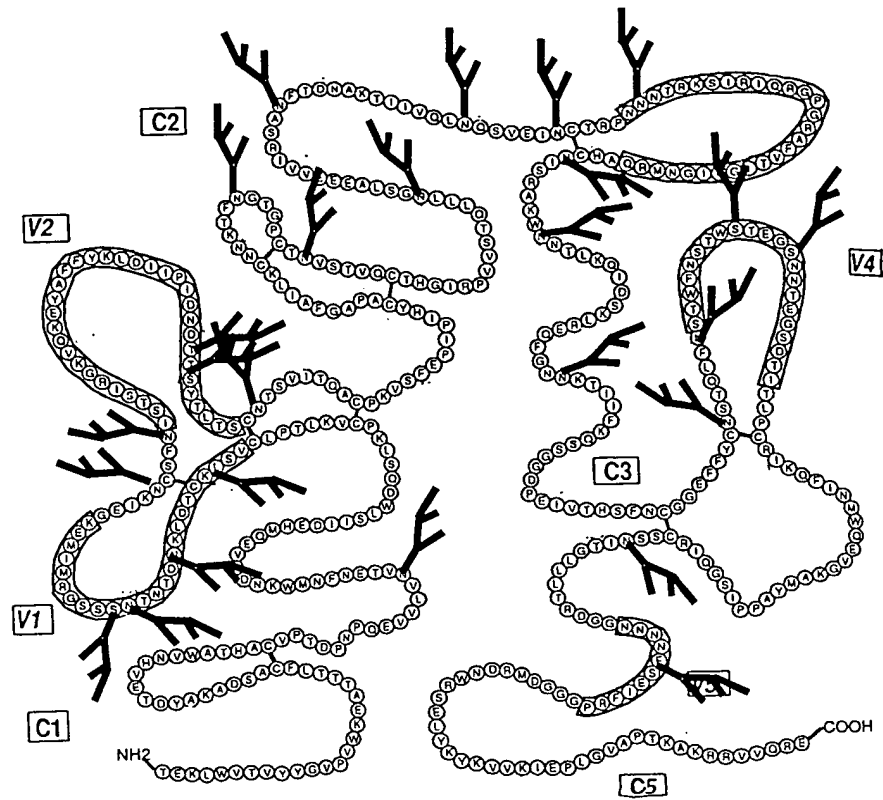
Figure 1.



2612 epitope
 2613 high mannose
 complex

Figure 2

Clade B
NSI



Clade B
SI

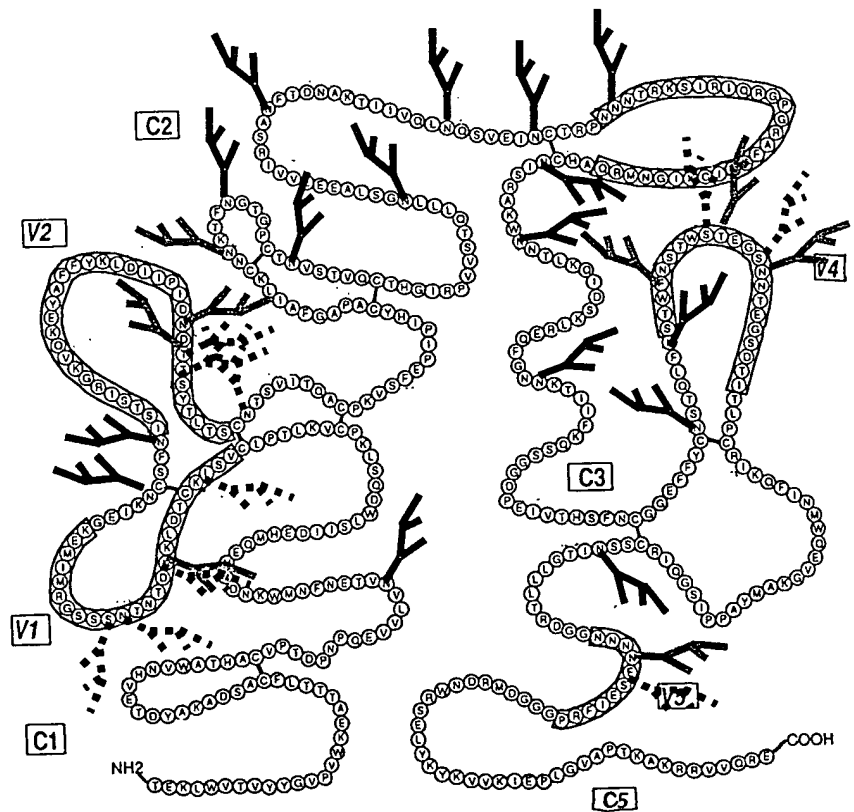
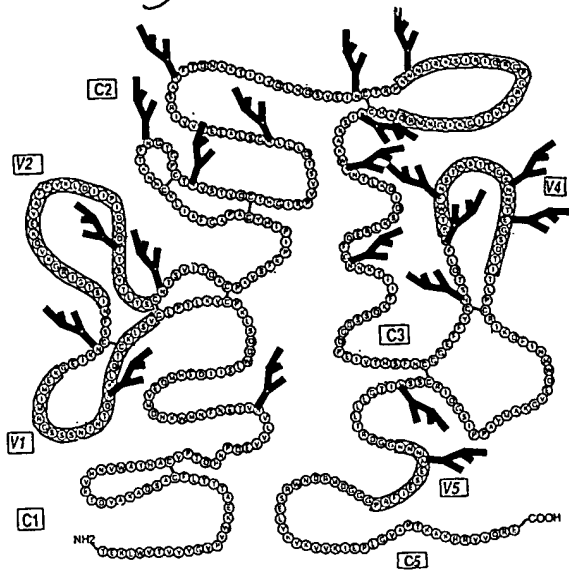
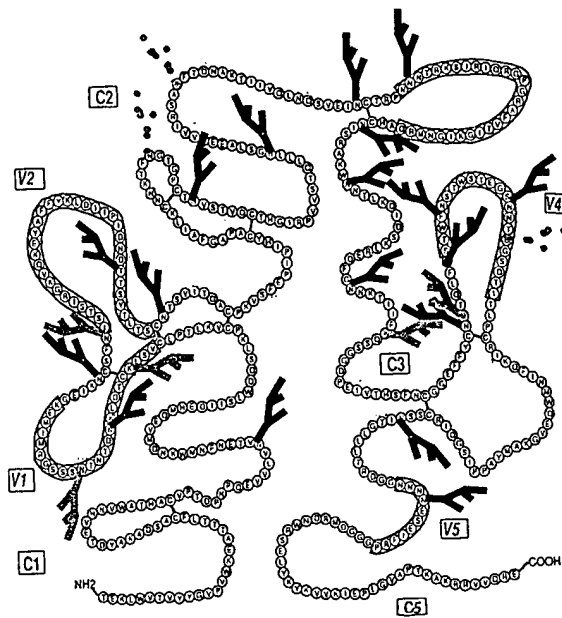


Figure 3



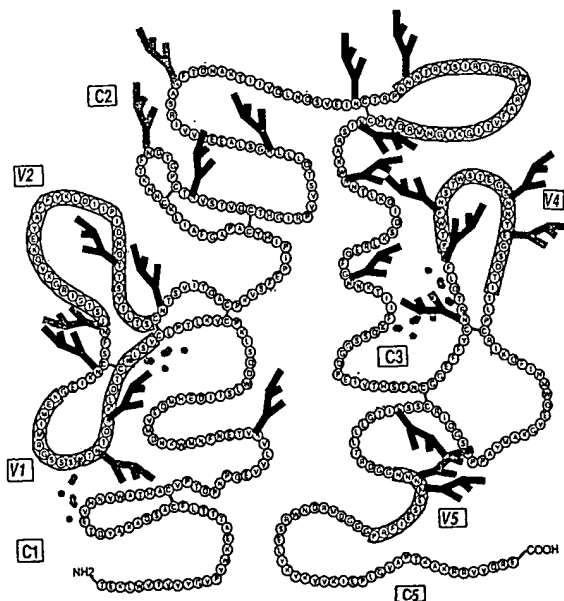
Early

- 21 original sites



Mid

- 5 sites are added
- 3 are removed



Late

- 4 sites are added
- Of the 5 sites added on the mid virus, 4 are now removed

Figure 4

A141 alignment of V1/V2

SF162	CVTLHCTNLK	NATNTKSSN-	WKEMDRGEIK	NCSFKVTTSI	RNKMQKEYAL	FYKLDVVPID	NDNTS--YKL	INC
A141-35-1	.....	T.....	.....	.....	.....	.....	.....	.....
A141-35-2	.....	T.....	.....	.....	.....	.....	.....	S.
A141-35-3	.....	.....	.....	.....	.....	.....	.....	.....
A141-35-4	.....	T.....	.....	.....	.....R.....	.....	.....	.....
A141-35-10	.....	T.....	.....	.....	.....	.....	.....	S.
A141-35-11	.....	.....	.....	.....	.....	.....	.....	.....
A141-35-12	.....	.....	.....	.....	.....	.....	.....	.....
A141-35-13	.....	.....	.....	.....	.....	.....	.....	.....
A141-35-14	.....	.....	.....	.....	.....	.....	.....	.....

SF162	CVTLHCTNLK	NATNTKSSN-	WKEMDRGEIK	NCSFKVTTSI	RNKMQKEYAL	FYKLDVVPID	NDNTS--YKL	INC
A141-56-1	.....	T.....	.....	.....	.....	.....	.....	.....
A141-56-2	.....	.....D.....	.....	N.....	.....	.....	.....	.....
A141-56-3	.....	T.....D.....	.....	.....	.....	.....	.....	.....
A141-56-4	.....	T.....	.....	.....	.....	.....	.....	.....
A141-56-5	.....	T.....	.....	.....	.....	.....	.....	.....
A141-56-10	.....	T.....	.....	.....	.....	.....	.....	.....
A141-56-11	.....	.....D.....	.....	N.....	.....	.....	.....	.....
A141-56-12	.....	.....D.....	.....	N.....	.....	.....	.....	.....
A141-56-13	.....	T.....	.....	.....	.....	.....	.....	.....
A141-56-14	.....	T.....	.....	.....	.....	.....	.....	.....

SF162	CVTLHCTNLK	NATNTKSSN-	WKEMDRGEIK	NCSFKVTTSI	RNKMQKEYAL	FYKLDVVPID	NDNTS--YKL	INC
A141-84-1	.....N.....D.R	.....N.....S.	EGKVE.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-84-2	.....N.....D.R	.....N.....S.	EGKVE.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-84-3	.....N.....D.R	.....N.....S.	EGKVE.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-84-4	.....N.....	T.....	.....	.....	.....	.....	.....	.....
A141-84-5	.....N.....D.R	.....N.....S.	EGKVE.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-84-6	.....N.....	.....N.....	.....	.....N.....	.....	.....	.....TS.....	.....
A141-84-7	.....N.....	T.....	.....	.....	.....	.....	.....	.....
A141-84-8	.....N.....D.R	.....N.....S.	EGKVE.....	.....NI.....	.....D.V.....	.....	.....PS.RW	.....S.
A141-84-9	.....N.....D.R	.....N.....S.	EGKVE.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.

SF162	CVTLHCTNLK	NATNTKSSN-	WKEMDRGEIK	NCSFKVTTSI	RNKMQKEYAL	FYKLDVVPID	NDNTS--YKL	INC
A141-117-1	.....N.....D.R	.....N.....S.	EGK.E.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-117-2	.....N.....D.R	.....N.....S.	EGK.E.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-117-3	.....N.....D.R	.....N.....S.	EGK.E.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-117-4	.....N.....D.R	.....N.....S.	EGK.E.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-117-5	.....N.....D.R	.....N.....S.	EGKVE.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-117-6	.....	.....	.....	.....	.....	.....	.....	.....
A141-117-7	.....N.....D.R	.....N.....S.	EGK.E.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-117-8	.....N.....D.R	.....N.....S.	EGK.E.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-117-9	.....	.....T.....	.....G.....	.....N.....	.....	.....	.....	.....
A141-117-10	.....N.....	T.....E.....	.....	.....	.....	.....	.....	.....
A141-117-11	.....S.K.D.	D.....N.SG	RMI.EK.....	.....NIS.....	.....D.V.....F.....	.....I.....	.....R.....	.....S.
A141-117-12	.....N.....D.R	.....N.....S.	EGK.E.....	.....NI.....	.....D.V.....	.....	.....TS.R.	.....S.
A141-117-13	.....S.K.D.	D.....N.SG	RMI.EK.....	.....NIS.....	.....D.V.....F.....	.....I.....	.....R.....	.....S.
A141-117-14	.....	.....D.....	.....	.....N.....	.....	.....	.....	.....

SF162	CVTLHCTNLK	NATNTKSSN-	WKEMDRGEIK	NCSFKVTTSI	RNKMQKEYAL	FYKLDVVPID	NDNTS--YKL	INC
A141-215-1	.....	.....D.....	.....	.....N.....	.....	.....	.....	.....
A141-215-2	.....	.....T.....	.....G.....	.....N.....	.....	.....	.....N.....	.....
A141-215-3	.....	.....D.....	.....	.....N.....	.....	.....	.....	.....
A141-215-5	.....	.....D.....	.....	.....N.....	.....	.....	.....	.....
A141-215-12D.....N.....
A141-215-13T.....G.....N.....N.....
A141-215-14T.....G.....N.....N.....
A141-215-15D.....N.....

A141 alignment of V4

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SF162          CNSTOLF-- --STWN-- --TIGFNT NG--TITLPC
A141-215-1     . . . . .
A141-215-2     . . . . .E.
A141-215-3     . . . . .
A141-215-5     . . . . .
A141-215-12    . . . . .
A141-215-13    . . . . .
A141-215-14    . . . . .
A141-215-15    . . . . .

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